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REMARKS

This response is intended as a full and complete response to the final Office Action mailed February 20, 2007. In the Office Action, the Examiner notes that claims 1, 3-9, 14, 18, 19, 23, 24, 28-32, 34, 37, 40-43, 45-50, 52-56 and 58-64 are pending and rejected.

In view of the following discussion, Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, Applicants believe that all of the pending claims are now in allowable form.

It is to be understood that Applicants do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

PRIORITY

In the Action, the Examiner states that the instant application is a continuation-in-part of U.S. Application No. 07/991,074 (instead of the currently claimed divisional). The Applicants respectfully submit this issue was addressed in the response to office action dated October 6, 2005 filed on December 6, 2005.

REJECTIONS

35 U.S.C. §103

Claims 1, 3-9, 14, 18-19, 23-24 and 28-29

The Examiner has rejected claims 1, 3-9, 14, 18-19, 23-24 and 28-29 as being obvious under 35 U.S.C. §103 as being unpatentable over Graczyk in view of Banker, Palazzi, Granger, and Florin. The Applicants note that claim 16 was canceled and that claim 19 is not indicated as pending in the Office Action Summary page. Regardless, the Applicants respectfully traverse the rejections.

Applicants' independent claim 1 (and similarly claims 14 and 24) recites:

1. A hardware upgrade for a set top terminal for use with a television program delivery system with menu selection of programs, the set top

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terminal having a microprocessor and microprocessor instructions for prompting generation of menus, the hardware upgrade comprising:

- an interface to the set top terminal for receiving and processing subscriber input;
- a modem connected to the interface for communicating with one or more headends, wherein the set top terminal receives television program signals based on the subscriber input; and
- a microprocessor connected between the interface and the modem,

wherein the hardware upgrade is a card insertable into the set top terminal to add a data modulation and demodulation function to the set top terminal such that data may be retrieved from the one or more headends and stored in local storage wherein the data comprising information from an interactive service for accessing an on-line database thereby allowing actual transactions using two-way communications over the modem with the interactive service via submenus, and the interface to the terminal comprises:

- interactive software stored in memory of said hardware upgrade to provide enhanced functional capabilities for the set top terminal; and
- processing circuitry to process said subscriber inputs associated with said interactive software.

The Applicants respectfully submit that the Examiner is using impermissible hindsight to piece together numerous references in rejecting independent claim 1. Specifically, there is no teaching or suggestion to combine the references in a way to create the Applicants' novel hardware upgrade card that is insertable into the set top terminal to add a data modulation and demodulation function to the set top terminal such that data may be retrieved from the one or more headends and stored in local storage.

Specifically, Graczyk and Palazzi both teach that the modem is a fixed part of the respective apparatuses. (See Graczyk, FIG. 1; Palazzi, FIG. 1.) Banker teaches the use of a modem, but fails to specifically teach or suggest that the modem is part of a hardware upgrade card that is insertable into a set top terminal. (See Banker, col. 4, ll. 40-50.) Florin teaches that a small computer system interface may be added to the transceiver to access a modem. (See Florin, col. 10, ll. 20-32.) The Applicants respectfully submit that a small computer system interface is not equivalent to a hardware upgrade card that is insertable into a set top terminal. Finally, Granger teaches creating a switching module that may be purchase separately and plugged into

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a set top converter. (See Granger, col. 7, ll. 20-27; FIG. 6.) Nowhere in Granger does Granger teach or suggest the module may be a hardware upgrade card that is insertable into the set top terminal to add a data modulation and demodulation function to the set top terminal. Therefore, a gap exists between the references, viz. a modem on an upgrade card. The Applicants respectfully submit that the Examiner is using impermissible hindsight to fill this gap by linking the teachings of Graczyk, Palazzi, Banker and Florin, which do not teach or suggest modifying a modem onto a hardware upgrade card, to modify a module taught by Granger to include a modem.

Furthermore, the Applicants respectfully submit that the combination of Graczyk, Palazzi, Banker, Florin and Granger do not teach or suggest wherein the data comprising information from an interactive service for accessing an on-line database thereby allowing actual transactions using two-way communications over the modem with the interactive service via submenus. In contrast, Palazzi only teaches data retrieval and not actual transactions using two-communications over the modem. (See Palazzi, Abstract.) In contrast, the Applicants' invention teaches more than mere data retrieval, but actual transaction such as for example, purchasing airline tickets, purchasing an item via home shopping, home banking, etc.

As such, Applicants submit that claims 1, 14 and 24 are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Furthermore, claims 3-9, 18-19, 23 and 28-29 depend, either directly or indirectly, from either independent claim 1, claim 14 or claim 24, and recite additional features thereof. As such, and for at least the same reasons discussed above, Applicants submit that these dependent claims also fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, Applicants respectfully request that the rejections be withdrawn.

Claims 30-32, 34, 37, 40-41, 45-50, 55, 56 and 58-59

The Examiner has rejected claims 30-32, 34, 37, 40-41, 45-50, 55, 56 and 58-59 as being obvious under 35 U.S.C. §103 over Palazzi in view of Banker and Florin. Applicants respectfully traverse the rejection.

Applicants' independent claim 30 (and similarly claim 42) recites:

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The Examiner has rejected claims 30-32, 34, 37, 40-41, 45-50, 55, 56 and 58-59 as being obvious under 35 U.S.C. §103 over Palazzi in view of Banker and Florin.

Applicants respectfully traverse the rejection.

Applicants' independent claim 30 (and similarly claim 42) recites:

30. A television terminal having a microprocessor and microprocessor instructions for prompting generation of menus, the television terminal comprising:

a television program receiver;

an interface to the television terminal for receiving and processing subscriber input;

a modem for communicating with one or more headends, wherein the television terminal receives television program signals based on the subscriber input; and

a microprocessor connected between the interface and the modem;

a hardware upgrade for upgrading the television terminal in the generation of menus comprising information from an interactive service,

wherein the modem downloads data from the one or more headends to a local storage, the modem for communicating with the interactive service and an on-line database wherein the interactive service and the on-line database are outside of the television program delivery system and the data comprising information from the interactive service for accessing the on-line database thereby allowing actual transactions using two-way communications over the modem with the interactive service via submenus; and

an output connected to the receiver and the modem, wherein the output accepts the television program signals from the receiver and data signals from the modem.

As discussed above, there is no teaching or suggestion to combine the references in a way to create the Applicants' novel hardware upgrade card that is insertable into the set top terminal to add a data modulation and demodulation function to the set top terminal such that data may be retrieved from the one or more headends and stored in local storage.

Palazzi teaches that the modem is a fixed part of the apparatus taught by Palazzi. (See Palazzi, FIG. 1.) Banker teaches the use of a modem, but fails to specifically teach or suggest that the modem is part of a hardware upgrade card that is insertable into a set top terminal. (See Banker, col. 4, ll. 40-50.) Florin teaches that a

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small computer system interface may be added to the transceiver to access a modem. (See Florin, col. 10, ll. 20-32.) The Applicants respectfully submit that Florin does not teach that the modem is part of a hardware upgrade, but rather a small computer system interface is the upgrade. Therefore, a gap exists between the references, viz. a modem on an upgrade card. The Applicants respectfully submit that the Examiner is using impermissible hindsight to fill this gap by linking the teachings of Palazzi, Banker and Florin, which do not teach or suggest modifying a modem onto a hardware upgrade.

Furthermore, the Applicants respectfully submit that the combination of Palazzi, Banker and Florin do not teach or suggest wherein the data comprising information from an interactive service for accessing an on-line database thereby allowing actual transactions using two-way communications over the modem with the interactive service via submenus. In contrast, Palazzi only teaches data retrieval and not actual transactions using two-communications over the modem. (See Palazzi, Abstract.) In contrast, the Applicants' invention teaches more than mere data retrieval, but actual transaction such as for example, purchasing airline tickets, purchasing an item via home shopping, home banking, etc.

Furthermore, Granger and Florin are not prior art. Although the present invention is a continuation-in-part application, those claims that are fully supported by the parent application benefit from the earlier filing date of the parent application. Granger has a priority date of December 15, 1992, and Florin has a priority date of June 22, 1993. The parent application of the present invention has a filing date of December 9, 1992.

All the features of the present independent claims 30 and 42 are fully disclosed in the parent application. Specifically, the parent application discloses a television terminal having a modem 627, wherein the hardware upgrade is on a card 700 and the upgrade includes 4 possible hardware upgrades such as Level B interactive unit as disclosed on pages 54-55. The upgrade utilizes the modem of the television terminal. This is also shown in FIG. 7b, which shows the hardware upgrade for generating the desired menus with on-line information.

As such, Applicants submit that claims 30 and 42 are not obvious and fully

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satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Claims 31-32, 34, 37, 40-41, 45-50, 55, 56 and 58-59 depend, either directly or indirectly, from independent claims 30 and 42 and recite additional features thereof. As such, and for at least the same reasons discussed above, Applicants submit that these dependent claims also fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, Applicants respectfully request that the rejections be withdrawn.

Claims 42-44

The Examiner has rejected claims 42-44 as being obvious under 35 U.S.C. §103 over Banker, Palazzi and Florin in view of Vogel (of record). Applicants respectfully traverse the rejection.

Claim 44 has already been canceled.

As stated above Banker, Palazzi, and Florin do not teach or suggest the Applicants' novel hardware upgrade card that is inserted into the set top terminal to add a data modulation and demodulation function to the set top terminal and wherein the data comprising information from an interactive service for accessing an on-line database thereby allowing actual transactions using two-way communications over the modem with the interactive service via submenus, as positively recited by independent claim 42. Vogel also does not teach or suggest that limitation. Thus, Banker, palazzo, Florin and Vogel, singly or in combination, fail to disclose the invention as a whole.

Furthermore, as discussed above, Granger and Florin are not prior art. Granger has a priority date of December 15, 1992, and Florin has a priority date of June 22, 1993. All the features of the present independent claim 42 are fully disclosed in the parent application; which has a filing date of December 9, 1992. Specifically, the parent application discloses a set top terminal with a hardware upgrade, wherein the upgrade is on a card and the upgrade includes 4 hardware upgrades such as Level B interactive unit as disclosed on pages 54-55 which uses a set top terminal's modem as claimed in claims 42-43.

Claim 43 depends directly from independent claim 42, and recites additional features thereof. As such, and for at least the same reasons discussed above,

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Applicants submit that claim 43 also fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, Applicants respectfully request that the rejections be withdrawn.

Claims 52-54

The Examiner has rejected claims 52-54 under 35 U.S.C. §103(a) as being unpatentable over Banker, Palazzi, and Florin in view of Sprague (of record). Applicants respectfully traverse the Examiner's rejection.

The Examiner asserts that Sprague discloses CD-Rom as memory storage device. However, the addition of Sprague does not bridge the substantial gap between Palazzi, Banker, and Florin and the present invention. As stated above, Palazzi, Banker, and Florin does not teach or suggest the Applicants' novel hardware upgrade card that is inserted into the set top terminal to add a data modulation and demodulation function to the set top terminal and wherein the data comprising information from an interactive service for accessing an on-line database thereby allowing actual transactions using two-way communications over the modem with the interactive service via submenus, as positively recited by independent claim 42. Sprague fails to bridge the substantial gap left by Palazzi, Banker and Florin because Sprague also fails to teach or suggest the Applicants' novel hardware upgrade card that is inserted into the set top terminal to add a data modulation and demodulation function to the set top terminal and wherein the data comprising information from an interactive service for accessing an on-line database thereby allowing actual transactions using two-way communications over the modem with the interactive service via submenus.

Furthermore, as discussed above, Granger and Florin are not prior art because Granger has a priority date of December 15, 1992 and Florin has a priority date of June 22, 1993. All the features of the present independent claims are fully disclosed in the parent application, which has a filing date of December 9, 1992. Specifically, the parent application discloses a set top terminal with a hardware upgrade, wherein the upgrade is on a card and the upgrade includes 4 hardware upgrades such as Level B interactive unit using a set top terminal's modem as disclosed on pages 54-55 which is in the present claims 52-54.

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Claims 52-54 depend, either directly or indirectly, from independent claim 42, and recite additional features thereof. As such, and for at least the same reasons discussed above, Applicants submit that these dependent claims also fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, Applicants respectfully request that the rejections be withdrawn.

Claims 60, 63 and 64

The Examiner has rejected claims 60, 63 and 64 as being obvious under 35 U.S.C. §103 over Granger in view of Wachob (U.S. Patent 5,234,494), Florin, Graczyk and Palazzi. Applicants respectfully traverse the rejections.

Applicants' independent claim 60 recites:

60. Apparatus for upgrading a capability of a set top terminal (STT), said STT having circuitry adapted to receive a data stream including a plurality of compressed television program signals, decompress a compressed program signal and provide a corresponding output signal adapted for use by a display device, said apparatus comprising:
a STT interface, for enabling communication with said STT;
a modem for providing on-line communications with a content provider, said modem being a card insertable into said STT to add a data modulation and demodulation function to said STT, wherein said STT includes a first processor for controlling said circuitry and wherein the apparatus upgrades the STT for accessing an on-line database thereby allowing actual transactions using two-way communications over the modem with an interactive service via submenus, and
an upgrade processor, for communicating with said first processor via said STT interface, said upgrade processor controlling said upgrade modem.

The Applicants respectfully submit that the Examiner is using impermissible hindsight to piece together numerous references in rejecting independent claim 1. Specifically, there is no teaching or suggestion to combine the references in a way to create the Applicants' novel modem for providing on-line communications with a content provider, said modem being a card insertable into said STT to add a data modulation and demodulation function to said STT.

Specifically, Graczyk and Palazzi both teach that the modem is a fixed part of the respective apparatuses. (See Graczyk, FIG. 1; Palazzi, FIG. 1.) Florin teaches that a

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small computer system interface may be added to the transceiver to access a modem. (See Florin, col. 10, ll. 20-32.) The Applicants respectfully submit that a small computer system interface is not equivalent to a hardware upgrade card that is insertable into a set top terminal. Finally, Granger teaches creating a switching module that may be purchased separately and plugged into a set top converter. (See Granger, col. 7, ll. 20-27; FIG. 6.) Nowhere in Granger does Granger teach or suggest the module may be a hardware upgrade card that is insertable into the set top terminal to add a data modulation and demodulation function to the set top terminal. Therefore, a gap exists between the references, viz. a modem on an upgrade card. The Applicants respectfully submit that the Examiner is using impermissible hindsight to fill this gap by linking the teachings of Graczyk, Palazzi and Florin, which do not teach or suggest modifying a modem onto a hardware upgrade card, to modify a module taught by Granger to include a modem.

Furthermore, the Applicants respectfully submit that the combination of Granger, Wachob, Florin, Graczyk and Palazzi do not teach or suggest wherein the data comprising information from an interactive service for accessing an on-line database thereby allowing actual transactions using two-way communications over the modem with the interactive service via submenus. In contrast, Palazzi only teaches data retrieval and not actual transactions using two-way communications over the modem. (See Palazzi, Abstract.) In contrast, the Applicants' Invention teaches more than mere data retrieval, but actual transaction such as for example, purchasing airline tickets, purchasing an item via home shopping, home banking, etc.

As such, Applicants submit that claim 60 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, claims 63 and 64 depend, either directly or indirectly, from independent claim 60, and recite additional features thereof. As such, and for at least the same reasons discussed above, Applicants submit that these dependent claims also fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, Applicants respectfully request that the rejections be withdrawn.

Claims 61 and 62

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The Examiner has rejected claims 61 and 62 under 35 U.S.C. §103(a) as being unpatentable over Granger, Wachob, Florin, Graczyk in view of Pond (U.S. Patent 5,329,590). Applicants respectfully traverse the Examiner's rejection.

Examiner asserts that Pond teaches sending billing information and programming events. However, the addition of Pond does not bridge the substantial gap between Granger, Wachob, Florin and Graczyk and the present invention. Pond also does not disclose teach or suggest the Applicants' novel modem for providing on-line communications with a content provider, said modem being a card insertable into said STT to add a data modulation and demodulation function to said STT and wherein the data comprising information from an interactive service for accessing an on-line database thereby allowing actual transactions using two-way communications over the modem with the interactive service via submenus, as positively recited by Applicants independent claim 60. Thus, Pond, Granger, Wachob, Florin and Graczyk, singly or in combination, fail to teach or suggest the claimed invention as a whole.

Claims 61 and 62 depend, either directly or indirectly, from independent claim 60, and recite additional features thereof. As such, Applicants submit that claims 61 and 62 are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, Applicants respectfully request that the rejections be withdrawn.

Official Notices

The Office Action takes numerous Official Notices. Applicants hereby traverse each Official Notice. The Examiner alleges that certain apparatuses and/or methods are well known in the art. However, the Applicants respectfully disagree. These apparatuses and/or methods may not be well known within the specific art of the present invention and as specifically recited in their respective claims. Furthermore, it may not be well known to combine the allegedly well known apparatuses and/or methods with other apparatuses and/or methods recited in the respective claims or in other claims from which the respective claims may depend.

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CONCLUSION

Applicants believe all the claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of an adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall or Jimmy Kim at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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